



Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)

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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)													
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		10/743,195	December 22, 2003												
		First Named Inventor													
		Forrest Frank Hopkins													
		Art Unit	Examiner												
		2882	Krystyna Suchecki												
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>															
<p>I am the</p> <table border="0"><tr><td><input type="checkbox"/> applicant/inventor.</td><td><u><i>Py</i></u></td><td>Signature</td></tr><tr><td><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td><td><u>Patrick S. Yoder</u></td><td>Typed or printed name</td></tr><tr><td><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>37,479</u></td><td><u>(281) 970-4545</u></td><td>Telephone number</td></tr><tr><td><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</td><td><u>August 16, 2006</u></td><td>Date</td></tr></table>				<input type="checkbox"/> applicant/inventor.	<u><i>Py</i></u>	Signature	<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	<u>Patrick S. Yoder</u>	Typed or printed name	<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>37,479</u>	<u>(281) 970-4545</u>	Telephone number	<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	<u>August 16, 2006</u>	Date
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<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>															
<input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.															

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Forrest Frank Hopkins et al.

Serial No.: 10/743,195

Filed: December 22, 2003

For: SYSTEM AND METHOD FOR
DETECTING AN OBJECT

§
§
§ Group Art Unit: 2882
§
§ Examiner: Krystyna Suchecki
§
§
§ Atty. Docket: 139681-2/YOD
§ GERD:0708

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August 16, 2006 Date	 Lynda Howell

PRE-APPEAL BRIEF REQUEST FOR REVIEW

In respect to the Final Office Action of March 16, 2006, Appellants respectfully submit this Pre-Appeal Brief Request for Review. This Request is being filed concurrently with a Notice of Appeal.

In the Office Action, the Examiner rejected all of the pending claims, including claims 1, 3-21, and 23-72. The Examiner also made the Office Action Final. All of the claims are believed to be in condition for allowance, and their reconsideration is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1, 5-21, 25-48, 51-58 and 61-72 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,838,758 (hereinafter "Krug") in view of U.S. Patent No. 5,023,895 (hereinafter

“McCroskey”). Appellants further note that the Application presently includes six independent claims, namely claims 1, 21, 41, 48, 58, and 68. Accordingly, all of the independent claims stand rejected in view of Krug combined with McCroskey. Because this was the only rejection of these independent claims, the Krug and McCroskey combination will be discussed in greater details below.

All of the independent claims recite, in generally similar language, two salient features that are either absent from the Krug and McCroskey references, or that simply cannot be rendered obvious because the references are not susceptible to combination as proposed by the Examiner. These features include: (1) the use of a stationary radiation source and a stationary detector for computed tomography imaging; and (2) three-dimensional reconstruction of a computed tomography image.

Krug fails to teach a stationary computed tomography scanner.

The Examiner relied upon Krug for teaching scanning of suspect articles for possible explosive contents. The Examiner specifically pointed out that Krug discloses the use of computed tomography scanning for such applications. While Krug does teach the use of computed tomography scanning, he does so in a very limited and specific manner. In fact, Krug actually teaches the use of dual energy projection X-ray imaging for initial screening. Those skilled in the art would readily recognize that such projection imaging is incapable of developing three-dimensional reconstruction views. However, Krug teaches that when certain suspect articles are located, the projection X-ray scanning may be supplemented with computed tomography scanning.

However, there is nothing whatsoever in Krug that would lead one skilled in the art to understand that the conventional computed tomography scanning system proposed is a stationary system. Indeed, the discussion in Krug of the computed tomography system would rather lead one to believe that it is nothing more than a

conventional rotational system through which packages or articles would be inserted. The only teaching or representation of the computed tomography scanner contained in Krug can be found in Figures 18A and 18B. One skilled in the art would not recognize these as anything other than a conventional rotational scanning system. At the very least, the Examiner has not presented any evidentiary basis in Krug for demonstrating otherwise. Accordingly, the basis for rejection set forth by the Examiner is not supported by the reference.

Because Krug does not provide the teachings relied upon by the Examiner, the combination of the Krug and McCroskey teachings cannot support a *prima facie* case of obviousness as argued by the Examiner. On this basis alone, Appellants request reconsideration and withdrawal of the rejection.

The teachings of Krug and McCroskey cannot be reasonably combined.

To establish a *prima facie* case of obviousness, the Examiner must set forth a reasonable basis for combining the references. In particular, it is incumbent upon the Examiner to state a reasonable motivational suggestion from the references for the modification or combination proposed. In the present case, the Examiner recognized that Krug fails to teach three-dimensional reconstruction of a computed tomography image, or of images made by such techniques and based upon data acquired from a computed tomography system. The Examiner relied upon McCroskey for teaching such three-dimensional image formulation.

McCroskey appears to teach an early version of a computed tomography scanning technique in which an article is rotated. It is uncertain, and indeed unlikely, that at the time McCroskey was written, the technique would have included anything similar to what would today be known as three-dimensional reconstruction. However, even allowing that McCroskey teaches something similar to three-dimensional reconstruction (which, however, Appellants do not concede), it is clear

that one skilled in the art upon reading Krug would not modify or combine Krug with the imaging technique of McCroskey.

The Examiner suggested that the combination would have been obvious to one of skill in the art at the time of the present invention “to allow for the detection of either explosives or objects within human bodies since the construction allows for the use of rapid reconstruction and detection of fine discontinuities or defects in critical portions of the scanned object.” The Examiner relied upon passages from McCroskey in support of this motivation.

However, Krug specifically teaches that computed tomography techniques are still too slow for the type of inspection needed for detection of explosives and other contents (*e.g.*, baggage screening). This is precisely the reason that Krug stresses that the computed tomography scanner *not* be used for initial or routine scanning. *See*, Krug, col. 32, lines 22-35 (“The CT scanner 1002 provides information relevant to the three-dimensional spatial configurations of objects within the baggage, for example, such as thicknesses of overlying materials, but takes a relatively long time to process each CT scan *and so is not suitable to be solely responsible for detecting and indicating suspect specific materials* on-line in real time.” *Emphasis added.*)

Those skilled in the art, upon reading both Krug and McCroskey would not conclude, as does the Examiner, that three-dimensional reconstruction is more rapid than the conventional computed tomography scanning taught by Krug. On the contrary, it would be generally expected that such three-dimensional reconstruction would be *even more time consuming*, and in fact *impossible* given the conventional CT scanner taught by Krug. Indeed, the fact that McCroskey teaches the use of a cone beam for imaging small rotating objects, does not imply that a three-dimensional reconstruction technique, as that term is currently understood in the art, would or could even be used in the time frames desired by Krug. That is, even the

earlier McCroskey technique would not be understood by a person of ordinary skill in the art at the time of the invention to provide a sufficiently rapid scan to overcome the concerns and teachings of Krug.

In short, because the specific motivation proposed by the Examiner is not supported by the references, and in fact is contrary to the teachings of the principal reference, Krug, the Examiner has not established a reasonable basis for the combination. Accordingly, a *prima facie* case of obviousness has not been established.

For all of the above reasons, Appellants respectfully request that the Panel instruct the Examiner to withdraw the outstanding rejections and allow the pending claims.

Respectfully submitted,

Date: 3/16/2006

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